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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/771,464 | 01/26/2001 | Veijo Vanttinen | 324-010114-US(PAR) | 6218 |

7590 06/07/2006

Clarence A. Green
PERMAN & GREEN, LLP
425 Post Road
Fairfield, CT 06430

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| EXAMINER |
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NGUYEN, HANH N

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| ART UNIT | PAPER NUMBER |
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2616

DATE MAILED: 06/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 09/771,464 | VANTTINEN ET AL. | |
| | Examiner | Art Unit | |
| | Hanh Nguyen | 2616 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 April 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-14 and 16-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3-14, 16-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

Claims 28 and 30 are objected to because of the following informalities: Applicant is suggested to amend “the paging method” into “the paging message” for claimed language consistency . Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 3, 4, 5, 10, 11, 14 , 15, 16, 17, 18, 23, 24, 27, 28, 29 and 30 are rejected under 35 USC 103(a) as being unpatentable over Verdonk (Pat. No. 6,330,454 B1) in view of Jones (US Pat. 6,748,320 B2).

In claims 1, 5, 14-16, 18, 27 and 29 based on the claimed language in claims 1, 14, Examiner considers “the complete location estimate” as “longitude and latitude information” where the subscriber termination is located. In addition, the “ timing information of the radio connection relating to a location” as claimed in claims 1 and 14 is claimed broadly; and does not indicate whether it is a timing advance factor or round trip time as in specification, paragraph [0060], therefore, examiner has an option to interpret the “ timing information of the radio

connection relating to a location” as either a time stamp as shown in Verdonk or a timing advance factor.

Verdonk discloses, in Fig.1, a combination of serving node 141, customer server 140 and server control point SCP 142 (a core network) determines a location of mobile unit 128 (subscriber) by transmitting a location request to MSC 102 via a packet data network 112 (packet switch radio network). See col.5, lines 1-7 & lines 20-25 & 32-40. The MSC 102 sends a page request to the mobile unit 128 (the packet switch radio network transmitting a paging message to the subscriber terminal). See col.5, lines 50-52. The mobile unit 128 responses its location to MSC 102 (subscriber unit transmits a page response to the radio network) comprising the required mobile unit 128 ‘s location (the radio network transmits the page response message to the core network). See col.5, lines 50-60. The response sent from the mobile unit 128 comprises identity of cell 144 serving the mobile unit (identity of serving cell), and longitude and latitude information (other information useful in complete location estimate) See col.5, lines 37-42 & lines 55-60 & col.6, lines 10-20); a time stamp indicating what time the mobile’s location was last determined (timing information of the radio connection relating to a location). See col.5, lines 45-50. Verdonk does not disclose measurements based on sources unrelated to a radio connection; and signal strength measurements. Jones discloses, in Abstract described in fig.1, a BSCU 14 sends a request message to a VCU 12 included in a pickup truck 19. The truck 19 sends its location, stop information to the BSCU 14. The stop information comprises when the truck has finished a previous delivery (see abstract); lunch, break, etc. (fig.1; col.11, lines 1-15) (measurements based on sources unrelated to a radio connection); time before arriving (see fig.27, col.22, lines 15-20; claims 27, 29; time advance factor). The signal strength in the

response message from the mobile or the truck is obviously measured in order to determine whether all the requested information is received or not. The office notice is taken that the signal strength measurements should be made during communication between the mobile /truck and the base station. Therefore, it would have been obvious to combine the teaching of Jones into Verdonk in order to determine information relating to location of the mobile. The motivation is to enhance communication capability between base station and mobile vehicle at any time.

In claim 2, Verdonk discloses at least timing information of the radio connection (a time stamp indicating what time the subscriber location was last determined, col.5, lines 45-50)

In claim 3, Verdonk discloses the location information may includes at least information on a previous location of the subscriber terminal (step 302, fig.3, col.7, lines 20-25).

In claims 4 and 17, Verdonk discloses that the mobile unit, when responses its location to the MSC, attaches it cell identity which is stored by the MSC (subscriber unit inserts at least part of information into the paging response message). See col.7, lines 30-47.

In claims 10, 11, 23 and 24, Verdonk discloses that in determining the mobile location, the serving MSC determines the most likely location of the mobile unit within the cell/sector wherein the mobile unit could reside anywhere within its current cell/sector (target set corresponds to quality of service when determining location of subscriber terminal). See col.2, lines 60-67. If the cell/sector services a heavily traveled road, the serving MSC determines a mean location on the road and assumes that the mean location is where the mobile unit resides (performing better quality of service if the the target set is not achieved). See col.3, lines 5-10.

In claims 28 and 30, Verdonk discloses paging message includes reason for which the subscriber terminal is located (the location determination is requested because a pickup request

is phoned to a customer 140; see col.60-65). The cause code indicative the reason is disclosed by Jones in col.17, lines 15-35 (addresses of packages to be delivered by truck 19 are scanned using bar code device. Package addresses are requested locations that the truck 19 stops by to deliver; and the truck carrying the packages which addressed are identified by bar code is requested to deliver the packages). Therefore, it would have been obvious to combine the teaching of Jones with that of Verdonk in order to determine mobile location carrying packages identified by bar codes.

Claims 6, 7, 8, 19, 20 and 21 are rejected under 35 USC 103(a) as being unpatentable over Verdonk (Pat. No. 6,330,454 B1) in view of Jones (US pat. 6,748,320 B2), and further in view of Willars et al. (US pat. No. 6,285,667 B1).

In claims 6, 7, 9, 19, 20 and 22, Verdonk does not disclose the subscriber terminal initiates the functions including measuring the signal and continues the performance of the functions. Willars et al. discloses, in Fig.1, a mobile station 1, after responding to the page request from a core network, continues to monitor the page channel from the the core network via the radio network (see col.4, lines 1-10 & line 55-60). Therefore, it would have been obvious to one ordinary skill in the art to modify the Verdonk to continue to receive page requests from core network as suggested by Willars. The motivation is to help the customer server of Verdonk determine its employee location and enhance the communication more effectively.

In claims 8 and 21, Verdonk discloses the paging signal received by the mobile unit 128 is transmitted from MSC 116 (signal transmitted by other base stations) via the serving MSC 102 (signal of serving cell). See col.5, lines 20-40.

Claims 12, 13, 25 and 26 are rejected under 35 USC 103(a) as being unpatentable over Verdonk (Pat. No. 6,330,454 B1).

In claims 12, 13, 25 and 26, Verdonk does not disclose the paging message is transmitted even though the subscriber terminal would already on standby due to the paging message received earlier; and the paging message and the response message use protocol correspond to third layer of the OSI model. The mobile unit of Verdonk is designed to continue to receive page message after receiving an earlier message. Therefore, the mobile unit, if would already be in the sleep mode, should be able to receive paging message due to a well-known skill in the art. The OSI model has been a well-known skill used to transmit paging messages.

Response to Arguments

Applicant's arguments with respect to claims ^{1,3-14,} ~~1-14,~~ 16-30 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kotola et al. (Pat. 6,321,257 B1) discloses method and Apparatus for Accessing Internet Service in a Mobile Communication Network.

Lupien et al. (Pat. 6,389,008 B1) discloses Integrated radio telecommunication networks and method of Interworking an ANSI-41 Network and GPRS.

McCrary et al. (US pat. 6,801,782 B2) discloses Method and Apparatus for determining the position of a mobile communication device.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hanh Nguyen whose telephone number is 571 272 3092. The examiner can normally be reached on Monday-Friday from 8AM to 4:30PM. The examiner can also be reached on alternate

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ahmad Matar, can be reached on 571 272 7488. The fax phone number for the organization where this application or proceeding is assigned is 571 273 8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

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applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hanh Nguyen

A handwritten signature in black ink, appearing to read 'H. Nguyen'.

**HANH NGUYEN
PRIMARY EXAMINER**